MEMORANDIUM

SUBJECT: Comments on Gulfco Marine Maintenance Superfund Site (Freeport, Tx) Draft Nature and Extent Report

FROM: Dipanjana Bhattacharya, USEPA Human Health Risk Assessor

TO: Gary Miller, USEPA Remedial Project Manager

THROUGH: John Meyer, Risk/Site Assessment Team Leader

DATE: March 23, 2009

General Comments on text:

1) For transparency and clarification, please address each exposure pathway and route and either eliminate it after giving an explanation or carry it forward. The organization of the report is hard to follow. It is unclear if dermal, ingestion, and inhalation pathways are affected in each media. Discussion of the inhalation pathway is missing from the report. This needs to be included and discussed since VOCs, SVOCs, and metals are COIs. Depending on climate and temperature variations, volatilization of chemicals and release of metal dust can make the inhalation exposure route complete. An updated version of the Conceptual Site Model would be a helpful addition to the upcoming Preliminary Site Characterization Report. I am including a sample CSM from the Public Health Assessment for Palmer Barge Line (another barge cleaning site in Port Arthur, Tx.)

2) There needs to be more text on the nearby residential population. What are the population demographics? Where are schools or day care centers in reference to the site? These points definitely need to be addressed in the upcoming Preliminary Site Characterization Report. I am attaching a figure that may be useful in conveying this information. It is from the Public Health Assessment for Palmer Barge Line (another barge cleaning site in Port Arthur, Tx.)

3) How were the metals chosen? Why weren't the full suite of metals chosen? Why wasn't mercury analyzed in all media? Other barge cleaning facilities such as Palmer Barge Line in Port Arthur, Texas had some groundwater and soil samples had levels of mercury which were above background concentration. (This is referred from Public Health Assessment for that site.) Metal contamination is particularly significant at a site where sandblasting was a major function. This metal dust could have migrated in all media. This can be released at a later point in time depending on weather patterns. A justification on why the full suites of metals were not used is warranted for transparency.

4) During rainfall how would surface water runoff flow? Has the direction of groundwater flow been determined? It would be helpful to include these details in the upcoming Preliminary Site Characterization Report.

5) Could recreational activities such as swimming be exposure scenarios for nearby residents or trespassers? Are there boundaries around the site? Can trespassers or recreational fisherman enter? Are there signs to warn people from entering the site? It would be helpful to include these details in the upcoming Preliminary Site Characterization Report.

6) What is the projected land use? It has been industrial/commercial. Please also include the exposure scenarios assuming future residential land use. This can be included in the CSM in the upcoming Preliminary Site Characterization Report. The residential land use scenario would be the most conservative possibility and would not warrant repetitions of reports in the future thereby saving time and money while being the most protective of human health.

7) Are the fish samples taken fillet or whole body? Please include this in the upcoming Preliminary Site Characterization Report.

8) There is an ATSDR Health Consultation specifically based on fish and crab data taken from November and December of 2006. The contaminant list is quite extensive in the Health Consultation and it might be helpful to refer to this document and address why the contaminant sampling list is less extensive in the EPA report.

9) Is there a public water supply for the residents? The report mentions the amount of dissolved solids in groundwater but does not directly state if this is potable. Please do so for transparency and clarification.

10) How many private, public, and industrial wells are near the site? How far away are these wells?

11) It might be useful to look at health outcome data (HOD) prior to the risk assessment and RI/FS. Health outcome data (HOD) record certain health conditions that occur in populations. These data can provide information on the general health of communities living near a hazardous waste site. They also can provide information on patterns of specified health conditions. Some examples of health outcome databases are tumor registries, birth defects registries, and vital statistics. Information from local hospitals and other health care providers also may be used to investigate patterns of disease in a specific population.

12) I liked the maps and tables in the report. They were very detailed and thorough. I also liked the data validation process description on pages 8 and 9.